REMARKS

Applicants respectfully request reconsideration of the application, as amended, in view of the following remarks.

The present invention as set forth in **amended Claim 1** relates to a liquid crystal display element. Notably, the element has a chiral nematic **liquid crystal layer which remains in a focal conic state in the interline portions** of the pixels, and the maximum space a (μm) between adjacent electrode regions and the thickness d (μm) of the liquid crystal layer satisfy a relational formula of $\mathbf{1.0 \cdot d \leqq a \leqq 4.0 \cdot d}$.

Amended Claim 2 relates to a liquid crystal display element. Notably, the element has a chiral nematic **liquid crystal layer which remains in a focal conic state in the interline portions** of the pixels, and the maximum space a (μm) between adjacent electrode regions, the thickness d (μm) of the liquid crystal layer, and the maximum effective voltage V_{max}(V) of a voltage applied to the front side electrode and the rear side electrode satisfy a relational formula of $\mathbf{1.0 \cdot d \leqq a \leqq d \cdot V_{max}/10}$.

New Claims 22 and 23 have been added to claim that based on the relations in each claim, the alignment of the liquid crystal in the interline portions is **restored from a planar state to a focal conic state.**

None of Hattori et al, Morokawa et al and West et al alone or in combination disclose or suggest a LC element in which the LC in interline portions is in a focal conic state or is restored from a planar state to a focal conic state.

Hattori et al disclose a LCD which operates in the OCB mode (Optical compensated bend mode). Here a **bend alignment state** (ON time) is changed to **a splay alignment state** (OFF time) and vise versa by utilizing the orientation at the surfaces. Operation of this type of display requires polarizers. Thus, if any portion of this display were in a focal conic state,

this portion would be seen as **defects**. Therefore, focal conic portions are not at all desired in an OCB type LCD. Accordingly, there is no interline portion which remains in a focal conic state as claimed. It is completely irrelevant what the display thickness or the voltage are. With all due respect, to maintain a focal conic state in an interline portion of an OCB type LCD makes no sense whatsoever, because it would mean to maintain a defect state between the pixels of the OCB type display. At the very least such defect state would be detrimental to the overall quality of the display, most notably for the contrast ratio.

In addition, the LC of Hattori et al is not restored in the interline portions from a planar state to a focal conic state as claimed in Claims 22 and 23.

To cure the defects of Hattori et al the Examiner has cited Morokawa et al. Morokawa et al discloses a liquid crystal optical modulator. Even if the pixel dimensions and gaps between adjacent pixels as described in this reference (Morokawa et al, col. 2, lines 24-28) are used in Hattori et al, it would not change the fact that it is detrimental for the resulting display to maintain LC in the interline regions in a focal conic state because Hattori et al's display is an OCB type LCD as discussed above.

Further, the Examiner has cited West et al to find support for the use of chiral dopants. Again, addition of the chiral dopants of West et al to the nematic LC used in the display of Hattori et al does not change the fact that the use of focal conic alignment in the interline spaces of Hattori et al is meaningless and would substantially change the operation of the display of Hattori et al.

If the proposed modification would render the prior art invention being modified unsatisfactory for its intended purpose, then there is no suggestion or motivation to make the proposed modification (*In re Gordon*, 733 F.2d 900, 221 USPQ 1125 (Fed. Cir. 1984)). The proposed modifications of Hattori et al by Morokawa et al and West et al would render

Hattori et al unsatisfactory for its intended purpose. Thus, there is no motivation or suggestion to modify Hattori et al.

Therefore, the rejection of Claims 1-3, 5, 6, 8 and 10 under 35 U.S.C. § 103(a) over Hattori et al in view of Morokawa et al and further in view of West et al is believed to be unsustainable as the present invention is neither anticipated nor obvious and withdrawal of this rejection is respectfully requested.

Applicants are in the process of preparing color pictures to further illustrate the above argument s as well as the operation of the claimed LC elements.

The objection to Claim 2 is respectfully traversed. As stated in the Claim, "the maximum space a (μm) between adjacent electrode regions" is measure in μm and not in V. Thus, this rejection should be withdrawn.

Applicants submit that the present application is now in condition for allowance and early notice of such action is earnestly solicited.

Respectfully submitted,

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